REMARKS/ARGUMENTS

Claims 1, 3 and 5-14 are pending in this application, claim 4 having been canceled, without prejudice or disclaimer, by this amendment and new claim 14 having been added by this amendment, but claims 8-12 have been withdrawn from consideration.

Claims 1-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Senda et al. U.S. Patent No. 5,990,417. Reconsideration of the rejection is respectfully requested.

Claim 1 has been amended to incorporate therein the feature of dependent claim 4, formerly dependent upon claim 1, of the binding agent being a resin or a rubber, and, therefore, dependent claim 4, has been canceled, without prejudice or disclaimer. An additional amendment to claim 1 is supported in the specification, for example, on page 17, lines 14-23.

New independent claim 14 is the same as independent claim 1 before the amendment to claim 1 made herein, except that the phrase "atoms of the magnetic material being separated by less than 10 nm" has been added to the end of the claim. Antecedent basis for the above-quoted feature of claim 14 is found, for example, on page 15, line 23, to page 16, line 12, of the specification, and in the drawings, for example, in Figs. 1 and 2. Fig. 1 "shows an image of a composite layer of an electromagnetic noise suppressor of the present invention observed with a high-resolution transmission electron microscope", (specification, page 13, lines 2-5), Fig. 1 being marked with a scale of 10 nm alongside the drawing.

Although the Office Action states that, "[a]s to Claim 4, 5, 6 & 7, Senda et al. '417 discloses the use of phenol resins, epoxy resins, (applicants hardening resins) vinyl resins, acrylate resins, or synthetic rubber (applicants resin or rubber) (Col. 15, Line 24-25)", (page 3, lines 16-18), Senda et al. only appears to disclose that the phenol resins, epoxy resins, vinyl resins, acrylate resins, or synthetic rubber may be used as adhesive 404 as shown in Fig. 20, (column 15, lines 24-25). Senda et al. discloses, as components included in the structure as shown in Fig. 20, the electromagnetic noise absorbing material shown in Fig. 10, (reference number 402 in Fig. 20), and the non-magnetic insulating substance shown in Fig. 10, (reference number 403 in Fig. 20), and does not disclose that the adhesive 404 is a component included in the structure shown in Fig. 10, (column 11, lines 38-46; column 14, line 66, to column 15, line 5). The adhesive 404 allows the attachment of the electromagnetic noise filter tape 401 to the cable 405 to be more convenient, (column 15, lines 9-23; Figs. 21A, 21B). Therefore, the adhesive 404 of Senda et al. is not equivalent to the binding agent, as claimed in independent

claims 13 and 14, and also is not equivalent to a resin or a rubber binding agent, as claimed in independent claim 1.

The Advisory Action states that, "[w]ith regards to argument regarding resin or rubber, by applicant's own admission Senda disclose resin and rubber substance that are similar to applicant's claim."

Senda et al. discloses that it is possible to use SiO_2, AlN, Al_2O_3, BN, TiN, SiC, polyethylene naphthalate (PEN), polyethylene teraphthalate (PET), polyimides, captone, or photoresist as the non-magnetic insulating material, (col. 13, lines 2 to 7).

In constrast, independent claim 1, as amended, provides that the binding agent is selected from the group consisting of polyolefine resin, polyamide resin, polyester resin, polyether resin, polyketone resin, polyurethane resin, polysiloxane resin, phenol resin, epoxy resin, acrylic resin, polyacrylate resin, natural rubber, isoprene rubber, butadiene rubber, styrene butadiene rubber, butyl rubber, ethylene propylene rubber, and urethane rubber.

In addition, with regard to claim 1, the Office Action states, "Senda et al. '417 does not disclose the imaginary part H of a complex magnetic permeability at 8 GHz higher than the imaginary part L of a complex magnetic permeability at 5 GHz...The physical properties of similar materials will inherently be similar," (page 3, lines 4-6, 7-8).

However, Fig. 13 of Senda et al. shows frequency characteristics of a noise absorbing material having the structure shown in Fig. 10, and indicates that the relative magnetic permeability μ_r", which appears to correspond to an imaginary part $\mu"_H$ or $\mu"_L$ of the complex magnetic permeability, as claimed in independent claims 1, 13 and 14, (see Senda et al., column 1, lines 27-34; specification, page 4, lines 3-12), decreases with an increase in the frequency. The scale of the horizontal axis in Fig. 13 ends at 1000 MHz, the relative permeability μ_r" is decreasing at 1000 MHz of the frequency, and thus it is anticipated that the relative magnetic permeability μ_r" at 8 GHz (8000 MHz) is smaller than 5 GHz (5000 MHz).

In contrast, in the electromagnetic noise suppressor, as claimed in independent claims 1, 13 and 14, an imaginary part $\mu"_H$ of complex magnetic permeability at 8 GHz is higher than an imaginary part $\mu"_L$ of complex magnetic permeability at 5 GHz.

Therefore, the frequency characteristics disclosed in Senda et al. appear to be entirely different from those as claimed in independent claims 1, 13 and 14.

The Office Action states that "[a]s Senda et al. has disclosed an amorphous material, it would not be crystalline. Additionally, at the interface between the binder and the magnetic material will have an area where atoms of the magnetic material are dispersed in the binding agents without crystallization (grain boundaries)," (page 4, lines 6-9).

Fig. 10 of Senda et al. shows that one or more of the particles of an alloy magnetic substance 202 are dispersed in a non-magnetic insulating substance 203, (column 11, lines 44-46).

However, in Senda et al., the distance between the alloy magnetic substances in the noise absorbing material having the structure shown in Fig. 10 was altered, and the frequency characteristics of the relative magnetic permeability μ_r", which appears to correspond to an imaginary part $\mu"_H$ or $\mu"_L$ of the complex magnetic permeability of independent claims 1, 13, and 14, are shown in Fig. 12, (see also column 12, lines 30-35).

The Advisory Action states that, "[a]dditionally, figure 12 illustrates frequency characteristics where the distance between particles 'dn' is altered."

Fig. 12 of Senda et al. shows a case where the distance dn between alloy magnetic substances was set to values of 5nm, 50nm, and 100nm. In such a case, Fig. 12 appears to show that the relative magnetic permeability μ_r", which appears to correspond to an imaginary part $\mu"_H$ or $\mu"_L$ of the complex magnetic permeability of independent claims 1, 13, and 14, decreases with an increase in the frequency at a frequency value of 1000 MHz. Thus, it is anticipated that the relative magnetic permeability μ_r" at 8 GHz (8000 MHz) is smaller than the one at 5 GHz (5000 MHz).

In contrast, in an electromagnetic noise suppressor, as claimed in independent claims 1, 13, and 14, an imaginary part $\mu"_H$ of complex magnetic permeability at 8 GHz is higher than an imaginary part $\mu"_L$ of complex magnetic permeability at 5 GHz.

Therefore, even when considering Fig. 12, the frequency characteristics disclosed in Senda et al. appear to be different from those of independent claims 1, 13, and 14.

Senda et al. appears to teach a distance between the alloy magnetic substances of 50 nm or more to maintain the electrical insulation between alloy magnetic substances, (column 12, lines 38-50).

In contrast, claim 14 provides that the distance between atoms of the magnetic material is less than 10 nm.

The Advisory Action states that "Senda disclose the magnetic substance within applicant's range between 1/10th and 10X of the skin depth (Col. 3, Line 45-54) as illustrated in figure 10 and discloses this depth being between 5 and 50 nm which would correspond to a separation distance within 10 nm."

However, Col. 3, Line 45-54 of Senda et al. discloses that the particle diameter of the alloy magnetic substance is within a range of from 1/10 to 10 times the thickness of the skin depth and does not indicate the distance separating the alloy magnetic substance particles, in contrast to independent claim 14.

Since each of claims 3 and 5-7 is directly or indirectly dependent upon independent claim 1, each of claims 3 and 5-7 is allowable for the same reasons recited above with respect to the allowability of independent claim 1.

In view of the foregoing amendments and remarks, allowance of claims 1, 3, 5-7, 13, and 14 is respectfully requested.

Respectfully submitted,

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